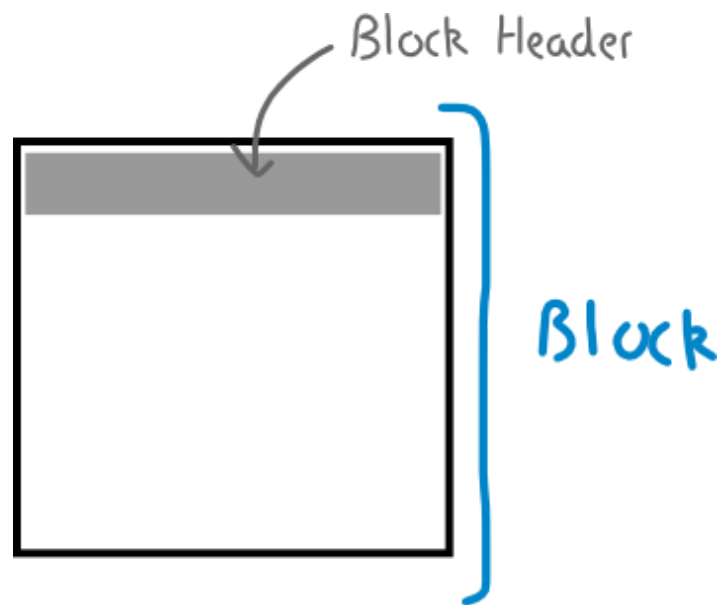


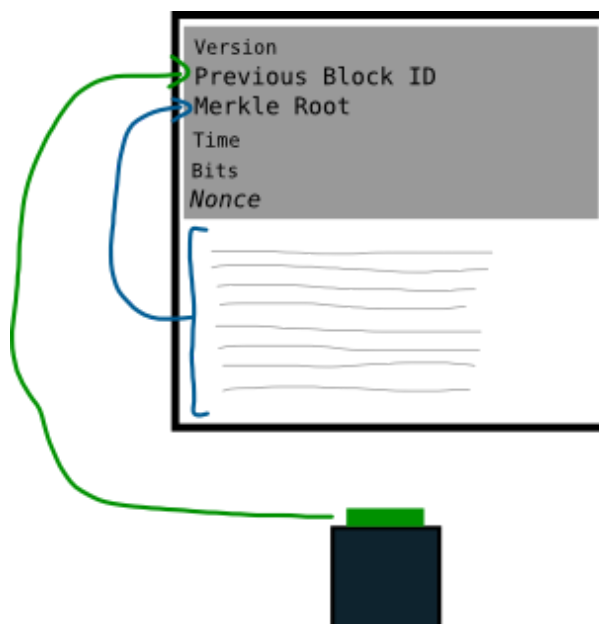
# BLOCK HEADER

A summary of the data in the block.

A block header is like the *metadata* at the top of a block of transactions.



The fields in the block header provide a unique summary of the entire block.



# Example

Here’s the block header for [block 123,456](#):

```
010000009500c43a25c624520b5100adf82cb9f9da72fd2447a496bc600b0000000000006cd8
62370395dedf1da2841ccda0fc489e3039de5f1ccddef0e834991a65600ea6c8cb4db3936a1a
e3143991
```

## Fields

Field	Description
Version	The version of the block.
Previous Block Hash	The <a href="#">Block Hash</a> of the block that this block is being built on top of. This is what “chains” the blocks together.
<a href="#">Merkle Root</a>	All of the transactions in this block, hashed together. Basically provides a single-line summary of all the transactions in this block.
Time	When a miner is trying to mine this block, the <i>Unix</i> time at which this block header is being hashed is noted within the block header itself.
<a href="#">Bits</a>	A shortened version of the Target.
<a href="#">Nonce</a>	The field that miners change in order to try and get a hash of the block header (a Block Hash) that is below the Target.

## Data Structure

Field	Size	Data
Version	4 bytes	<a href="#">Little-endian</a>
Previous Block Hash	32 bytes	Big-endian
Merkle Root	32 bytes	Big-endian
Time	4 bytes	Little-endian
Bits	4 bytes	Little-endian
Nonce	4 bytes	Little-endian

# Tools

- [Hash Block Header](#) - Insert individual block header fields, and get the *serialized block header* and the *Block Hash*.

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